

project of Development Alternatives, Delhi and Palni Hills Conservation Council, Kodaikanal). I thank Dr. Rauf Ali of SDP for useful discussions

Dr. N. Parthasarathy of Pondicherry University, Dr. B.R. Ramesh of French Institute, Pondicherry and Mr. Rajendran of SDP for help with the identification of plant specimens and

Ms. Soubadra Devi, of Pondicherry University, for butterfly identifications.

April 18, 1996 GHAZALA SHAHABUDDIN  
School of Environment,  
Duke University,  
Durham, NC-27708, U.S.A.

#### REFERENCES

- EVANS, W.H. (1910): A list of the butterflies of the Palni Hills with descriptions of two new species. *J. Bombay nat. Hist. Soc.* 20 (2): 380-392.
- LARSEN, T.B. (1987a): The butterflies of the Nilgiri Mountains of Southern India. *J. Bombay nat. Hist. Soc.* 84 (1): 26-54.
- LARSEN, T.B. (1987b): The butterflies of the Nilgiri Mountains of Southern India. *J. Bombay nat. Hist. Soc.* 84 (2): 291-316.
- LARSEN, T.B. (1987c): The butterflies of the Nilgiri Mountains of Southern India. *J. Bombay nat. Hist. Soc.* 84 (3): 561-584.
- SATYAMURTI, S.T. (1966): Descriptive catalogue of the butterflies in the collection of the Madras Government Museum. Govt. of Madras.
- UGARTE, E. AND L. RODERICKS (1960): Butterflies of the Palni Hills: A complementary list. *J. Bombay nat. Hist. Soc.* 57 (2): 270-277.
- VARSHNEY, R.K. (1979): Revised nomenclature for taxa in Wynter-Blyth's book on the butterflies of the Indian region-I. *J. Bombay nat. Hist. Soc.* 76(1): 33-40.
- VARSHNEY, R.K. (1985): Revised nomenclature for taxa in Wynter-Blyth's book on the butterflies of the Indian region-II. *J. Bombay nat. Hist. Soc.* 82(3): 309-321.
- WYNTER-BLYTH, M.A. (1957): Butterflies of the Indian Region. Bombay Natural History Society, Mumbai.

### 30. FIRST RECORDS OF SUBFAMILY TENTHREDININAE (HYMENOPTERA : TENTHREDINIDAE) FROM INDIA

(With nine text-figures)

The genus *Colochelyna* with its type species *C. magrettii*, was erected by Konow in 1898. It was represented by three species from southeast Asia, excluding India. Now, with *C. magrettii* recorded from Nagaland, the genus has extended its limits to India as well. Similarly, *Tenthredo sauteri* (Rohwer) previously recorded from Taiwan, Burma and Tonkin and *Tenthredo kingdonwardii* Malaise from China and Burma, are now reported from India.

*Colochelyna magrettii* Konow, 1898  
(Fig. 5)

Female: Average length: 16 mm. Body dark reddish-brown except antennae, tibiae and tarsi of all legs. The following parts are black: furrows above the clypeus and of mesonotum,

mesoscutellar appendage, metanotum, mesepimeron, mesepisternum except a spot in the centre, metapleuron, propodeum except extreme posterior margin, 2nd and 3rd abdominal tergites, coxae, trochanters, and basal halves of all femora. The labrum, an irregular spot covering frontal area, and extreme posterior margin of propodeum with deflexed sides are white. Wings with a darker shade along anterior margin of forewings. Venation blackish, costa and stigma fulvous.

Antenna slightly compressed, 2.0 x head width, segment 3 distinctly longer than 4 as 6:3. Clypeus slightly rounded, with a faint indication of incision in middle. Labrum small, convex, with a conical anterior margin. Malar space almost equal to the diameter of median ocellus. LID: IDMO: EL :: 3.1 : 4.0 : 3.0, OOL : POL : OCL :: 2.5 : 1.0 : 1.7, Frontal area above the level of eyes;

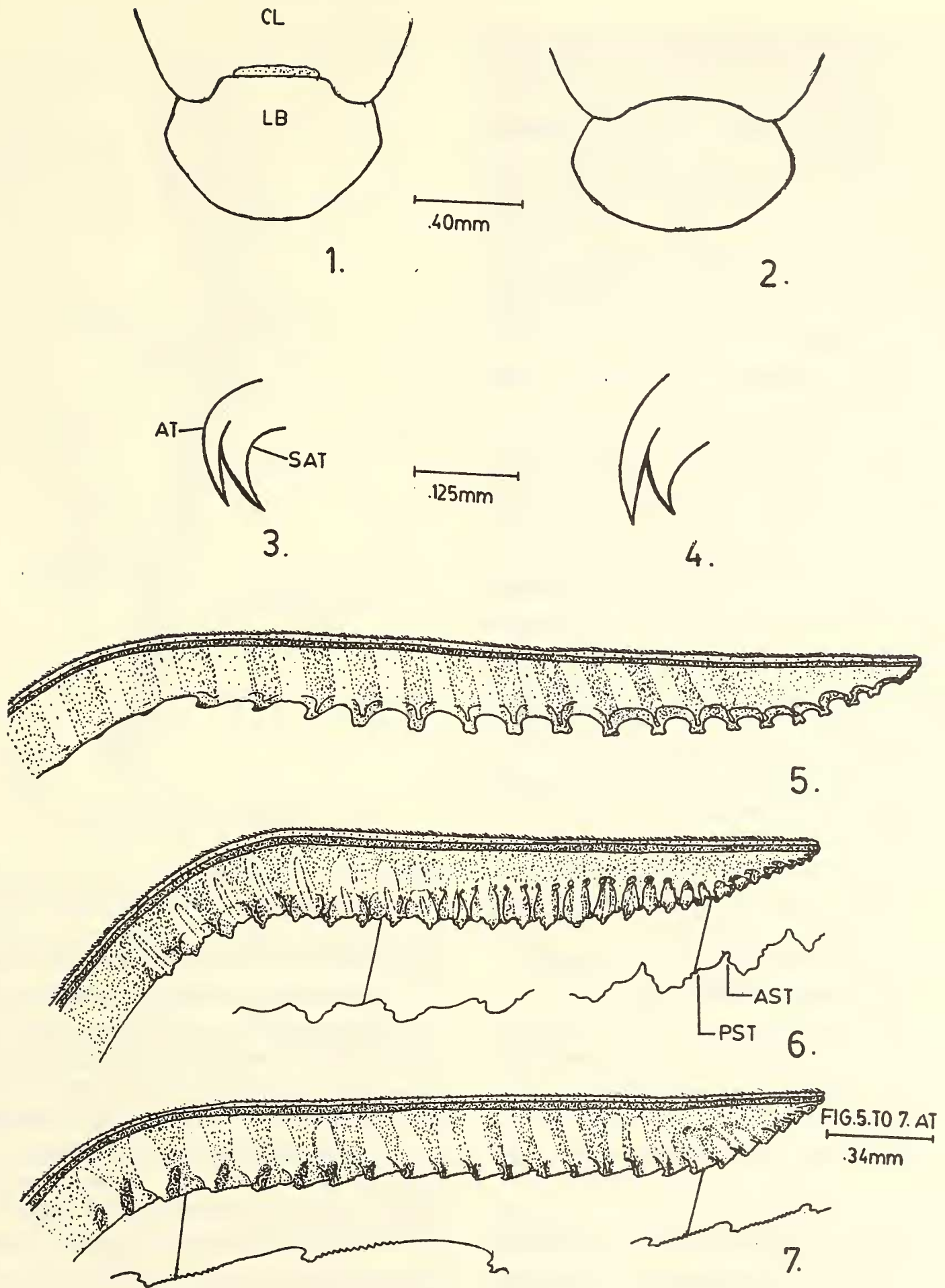


Fig. 1-7: 1. Clypeus and labrum of *T. sauteri*; 2. Clypeus and labrum of *T. kingdonwardii*; 3. Claw of *T. sauteri*; 4. Claw of *T. kingdonwardii*; 5. Lancet of *C. magrettii*; 6. Lancet of *T. sauteri*; 7. Lancet of *T. kingdonwardii*.



supra-antennal tubercles and frontal ridges wanting. Median fovea indistinct. Circum-, and interocellar furrows distinct, postocellar furrows sharp. Lateral furrows deep, but not reaching hypothetical posterior margin of head. Postocellar area convex, broader than long as 4:3. Scutellum elevated, subconical with rounded apex. Appendage without carina. ITD : ICD :: 2.5 : 1.0. Mesosternal thorns wanting. Metabasitarsus shorter than following 3 joints combined. IATS: MB : OATS :: 2.0 : 5.1 : 1.5.

Head covered with large and shallow punctures, frontal area almost apunctate. Pro- & mesonotum minutely and densely punctured as compared to head, punctures becoming larger in size on scutellum, mesoscutellar appendage and postmesonotum which are comparatively coarsely and densely punctured. Mesopleura and metapleura uniformly covered with minute, shallow punctures. Propodeum with large, scattered punctures around the median split and lateral ends, thus leaving a polished and almost apunctate space in the middle of each half. The following tergites opaque with coarse, distinct, dense punctures, strongly contrasting with the polished and apunctate areas of propodeum. Female lancet as in Fig. 5 with 22 flat serrulae.

**Holotype depository:** NR Stockholm.

**Specimens examined:** 2 females, Nagaland, Zunehebotto, 1875 m. 14.v.1993.

**Population variation:** None.

**Discussion:** The genus earlier reported by Malaise from Burma with species *C. magrettii*, now represents the first record from India.

*Tenthredo sauteri* (Rohwer, 1916)  
(Figs. 1, 3, 6)

Female: Length: 9.5 mm. Body black, the following are yellowish-white: labrum and clypeus except irregular spots in middle, mandibles except apices, spot covering supraclypeal area, inner orbits, supra-antennal tubercles and laterally extending upto upper eye

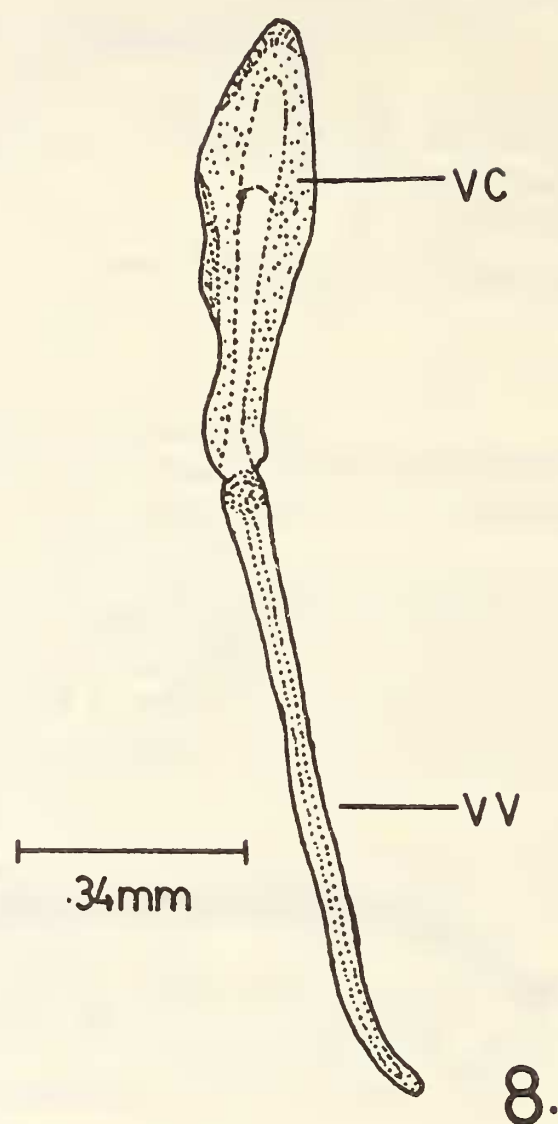


Fig. 8. Penis valve of *T. kingdonwardii*

corner, spot on hind margin of eye turning into narrow stripe and extending upto temples, posterolateral angles of pronotum, tegula, V-shaped spot in the centre of mesonotal middle lobe, mesoscutelum except its posterior 1/3rd, appendage, spot on mesepimeron, spot along anterolateral convexity of mesepisternum, spot in middle of propodeum, small spots in middle of last 2 abdominal tergites. Light yellowish-brown areas include lateral deflexed sides of propodeum, 2nd abdominal tergite, some dorsal aspects of 4th and 5th abdominal tergite with lateral deflexed sides along sternites, anterior aspects of proleg except bases of coxae, extreme proximal end of coxae, trochanters, tibiae and entire posterior aspects of tarsi of pro- and mesoleg, metaleg except bases of coxa, femora, tibia and tarsus which are reddish-brown. Wings

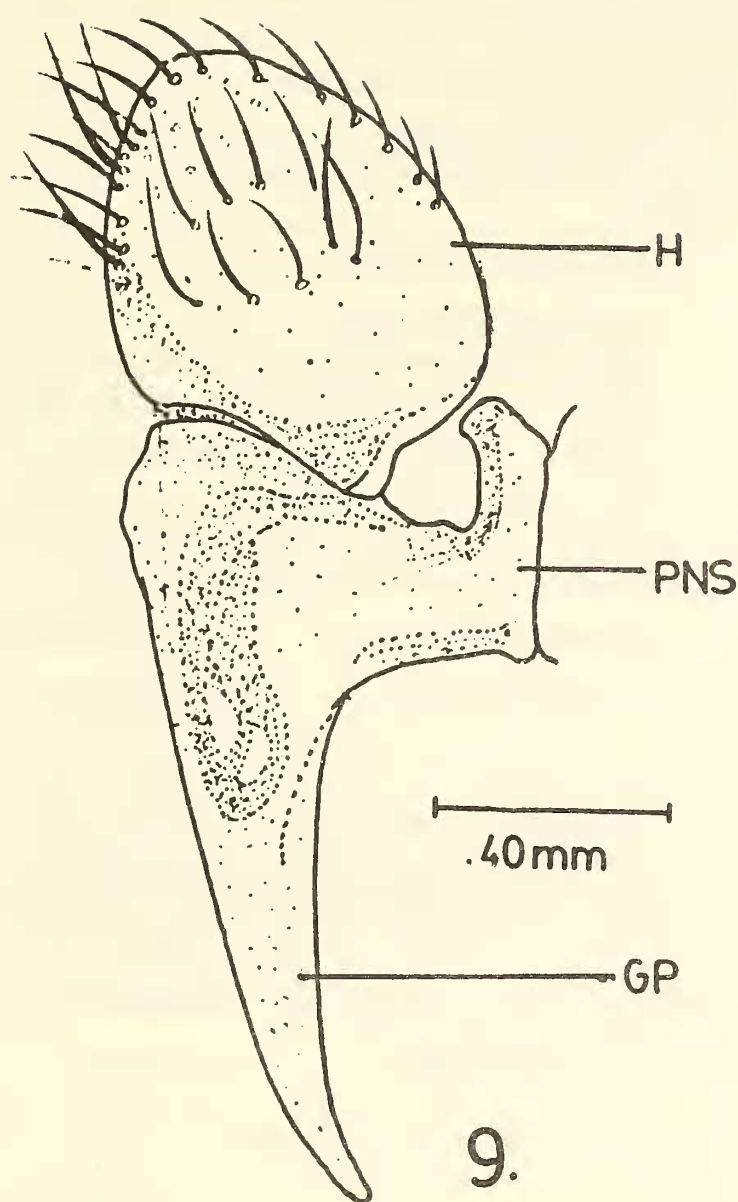


Fig. 9. Gonoforceps of *T. kingdonwardii*

hyaline, costa and stigma yellowish-brown, rest of the venation dark brown.

Antenna cylindrical, compressed in latter half, 2.4x head width, segment 3 shorter than 4 as 3:3.5. Clypeus (Fig. 1) roundly incised upto 1/3rd of its medial length with broad acute lateral teeth. Labrum almost rounded but with sub-acuminate anterior margin, as long as broad. Malar space distinctly shorter than diameter of median ocellus. LID : IDMO : EL :: 2.0 : 3.1 : 3.0; OOL : POL : OCL :: 2.5 : 1.0 : 1.7. Frontal area below level of eyes. Supra-antennal tubercles elevated and merging into flat frontal ridges. Median fovea deep in anterior half and with a raised bottom in posterior half. Circum-, inter-

and postocellar furrows distinct. Lateral furrows narrow, deep slightly excurved and reaching hypothetical posterior margin of head. Postocellar area only a little wider than long, almost quadrate. Head elongate and narrowing behind eyes. ITD : ICD = 3.0 : 1.0. Scutellum elevated into a low pyramid with an acute and longitudinally compressed thorn, its appendage without carina. Mesosternal thorns lacking. Apical tooth of claw slightly shorter than subapical one (Fig. 3). Metabasitarsus equal to following 3 joints combined. IATS : MB : OATS :: 1.2 : 2.5 : 1.0.

Head shining, apunctate. Mesonotum covered with minute and isolated punctures. Mesoscutellum with few punctures on its posterior slope, its appendage almost apunctate. Mesepisternum punctured like mesonotum along convexity. Metanotum apunctate. Propodeum and remaining tergites shining, but with a few patches of scattered punctures on the posterior aspects. Lancet as in Fig. 6 with 27 serrulae, having 1-2 AST and 1-3 PST.

**Holotype depository** : USNM Washington.

**Specimen examined**: 1 female, West Bengal, Pashok, 1600 m, 19.v.86.

**Discussion** : This species was recorded by Malaise from Burma and Taiwan. The collection of a female specimen from Pashok (West Bengal) represents the first record from India.

*Tenthredo kingdonwardii* Malaise, 1945  
(Figs. 2, 4, 7, 8 9)

**Female**: Average length; 8.5 mm. Body moss green, the black parts include antenna above, narrow stripes outer to frontal ridges, partly obliterated traces of ocellar spots, seams of mesonotal lobes, spots on posterior and outer extremities of mesonotal lateral lobes, stripe dividing meso- and metanotum, anterior and posterior seams of propodeum, a stripe on lateral aspect of femora and extreme basal parts of tibiae of all legs. 2nd to 9th abdominal tergites ferruginously red. Wings yellowish hyaline, costa and stigma light green, rest of venation dark.



Antenna slightly compressed in distal half, 1.5 x head width, segment 3 and 4 as 2:1.1. Clypeus (Fig. 2) narrowly incised with triangular lateral teeth. Labrum small, broader than long with a rounded anterior margin. Malar space equal to diameter of median ocellus. LID : IDMO : EL :: 2.0 : 2.5 : 1.75; OOL : POL : OCL :: 3.0 : 1.0 : 2.0. Frontal area almost at level of eyes. Supra-antennal tubercles and frontal ridges very low and confluent, without any interruption. Median fovea narrow, shallow and with a rounded median ridge along the bottom. Circum-, inter- and postocellar furrows distinct and very faintly sunken. Lateral furrows sharp, deep and reaching hypothetical hind margin of head. Postocellar area broader than long as 4 : 3. Head dilated behind eyes. ITD : ICD :: 3.0 : 1.0. Mesoscutellum with anterior face quite horizontal and on the same level as mesonotum, the hind face mostly abruptly falling away. The elevated apex of mesepisternum with a faint indication of short dorsoventral carina. Mesosternum lacking thorns. Apical tooth of claw subequal to subapical one (Fig. 4). Metabasitarsus shorter than following 3 joints combined. IATS : MB : OATS :: 1.0 : 2.5 : 0.75.

Head with very minute, rather dense, setigerous punctures with short black hair, but with hardly any microsculpture; lacking oily lustre, mesonotum likewise. Mesoscutellum with large and shallow punctures. Mesepisternum almost apunctate. Metascutellum and appendage with few punctures. Propodeum and tergites shining and faintly microstriated. Lancet (Fig. 7) with 25 serrules having 2 AST and 12-13 PST.

Male - Average length: 8 mm. Similar to female except H-shaped black ocellar spot

on frontal area, mesopleural suture black, meso- and metaleg entirely black on posterior aspects except coxae; black stripe on the anterior margin of 2nd tergite; 5th to 9th abdominal tergites ferruginously red; clypeus more deeply incised.

**Penis valve:** Fig. 8.

**Gonoforceps:** Fig. 9.

**Holotype depository:** British Museum

**Specimen examined:** 2 females 2 males, Uttar Pradesh, Chopta - 3000 m. 26.vi.89.

**Discussion:** The species *T. kingdonwardii* was reported by Malaise from Burma and China and extends its distribution to India as well.

**Abbreviations:** AST - anterior subbasal teeth, AT - apical tooth, CL - clypeus, EL - eye-length, ICD - intercenchri distance, IDMO - interocular distance at level of median ocellus, ITD - intertegular distance, LB - labrum, LID - lower interocular distance, OCL - oculo-occipital line; OOL - oculo-ocellar line, POL - postocellar line, PST - posterior subbasal teeth, VC - valviceps, VV - valvura, GP - gonostipes, H - harpe, PNS - parapenis.

#### ACKNOWLEDGEMENT

We thank USPL-480 for financial assistance, and co-operating Scientist Dr. D.R. Smith, USNM, Washington, DC., for his valuable suggestions.

August 20, 1996

M.S. SAINI  
HIMENDER BHARTI  
Department of Zoology,  
Punjabi University,  
Patiala-147 002.

#### REFERENCES

- Konow, F.W. (1898): Neue asiatische Tenthrediniden (Hymenoptera). *Ent. Nachr.*, 24: 86-93 and 105-109.  
Malaise, R. (1945): Tenthredinoidea of south-eastern Asia

- with a general zoogeographical review. *Opus. Ent., Suppl.*, 4: 288 pp.  
Rohwer, S.A. (1916): H. Sauter's Formosa Ausbeute Chalastogastra. *Suppl. Ent., Bertin*, 5: 81-113.